

Amendments to the Claims:

Please amend claims 33, 35, 38, 57, 59, and 64-66. Please add new claims 67-68.

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

33. (Currently amended) A method of making a filtering face mask, which method comprises:

(a) providing (i) a valve seat that comprises an orifice, a flap-retaining surface, and a seal ridge that terminates at a seal surface, wherein the orifice allows air to pass therethrough and is surrounded by the seal surface, and (ii) a single flexible flap that has a periphery,

(b) supporting the single flexible flap at the flap-retaining surface non-centrally and operatively relative to the orifice and operatively relative to the seal surface of the valve seat to form an exhalation valve, the single flexible flap being supported such that: (i) the flexible flap assumes, in its closed state, a curved profile in a cross-sectional view thereof, which [[the]] curved profile comprises a curve that extends from a first point where a first stationary portion of the flexible flap is supported on the valve seat to a second point where a second free portion of the flexible flap contacts the seal surface; (ii) the second free portion of the flap is pressed against the seal surface of the valve seat in a closed state of the exhalation valve; (iii) the second free portion of the flexible flap is held in its closed state under any orientation of the valve, at least in part, by virtue of the curved profile thereof; [[and]] (iv) the second free portion of the flexible flap includes a free segment of the periphery and represents the only free portion of the flap and can flex so as to permit exhaled air to pass through the orifice and to provide an open state of the exhalation valve to make the flexible flap out of contact with the seal surface at the second point while the first portion of the flexible flap includes a stationary segment of the periphery opposite at least part of the free segment and remains essentially stationary at the first point; and (v) the stationary portion of the flexible flap when viewed from the side in cross-sectional profile extends from the first point where the flap is supported on the flap retaining surface to the stationary segment of the periphery of the flap;

(c) attaching the exhalation valve to a mask body that is adapted to fit over the nose and mouth of a person.

34. (Canceled)

35. (Currently amended) The method of making a filtering face mask of claim 33, further comprising securing a valve cover to the valve seat such that includes a flap retaining surface, the flap retaining surface is being located within an internal chamber defined by a valve cover.

36. (Previously presented) The method of making a filtering face mask of claim 35, wherein the first stationary portion of the flexible flap is held between the flap retaining surface on the valve seat and a second member that is associated with the valve cover when the valve cover is secured to the valve seat.

37. (Previously presented) The method of making a filtering face mask of claim 36, wherein the flexible flap is secured to the valve at the first stationary portion by mechanical clamping.

38. (Currently amended) The method of making a filtering face mask of claim 36, wherein the flexible flap can assume a curved profile, when in its closed state, that extends [[in]] from where the flexible flap contacts the second member of the valve cover to where the second portion of the flexible flap contacts the seal surface of the valve seat.

39. (Previously presented) The method of making a filtering face mask of claim 36, wherein the flap retaining surface is oriented transversely relative to the orifice.

40. (Previously presented) The method of making a filtering face mask of claim 39, wherein the flap retaining surface is positioned adjacent one side of the orifice.

41. (Previously presented) The method of making a filtering face mask of claim 37, wherein the flexible flap would normally exhibit a flat configuration but is curved by virtue of the securement of the flap to the valve seat and the relative positioning and alignment between the seal surface and the flap retaining surface.

42. (Previously presented) The method of making a filtering face mask of claim 35, wherein the flexible flap would normally exhibit a flat configuration but is curved by virtue of the securement of the flap to the valve seat and the relative positioning and alignment between the seal surface and the flap retaining surface.

43. (Canceled)

44. (Previously presented) The method of making a filtering face mask of claim 33, wherein the shape of the orifice does not correspond fully to the shape of the seal surface, and wherein the flexible flap is mounted to the valve seat in cantilever fashion.

45. (Canceled)

46. (Previously presented) The method of making a filtering face mask of claim 33, wherein the curvature of the flexible flap extends not only from the first and second points but also from a third point that is located at where the flexible flap contacts a location on the seal surface opposite the second point.

47-48. (Canceled)

49. (Previously presented) The method of making a filtering face mask of claim 33, wherein the valve seat includes a flap-retaining surface that is spaced from the orifice at about 1 to 3.5 millimeters.

50. (Previously presented) The method of making a filtering face mask of claim 33, further comprising providing the valve seat from a relatively light-weight plastic that is molded into an integral one-piece body.

51-54. (Canceled)

55. (Previously presented) The method of making a filtering face mask of claim 33, further comprising configuring the second free portion of the flexible flap to have a profile that when viewed from the front corresponds to the general shape of the seal surface and comprises a curve.

56. (Previously presented) The method of making a filtering face mask of claim 55, wherein the flexible flap is configured to be 1.2 to 3 centimeters wide and about 1 to 4 centimeters long.

57. (Currently amended) The method of making a filtering face mask of claim 55, wherein the flexible flap is configured to have a peripheral edge that includes a stationary segment of the peripheral edge of the flexible flap [[that]] represents about 10 to 25 percent of the total peripheral circumferential edge of the flexible flap, with the remaining 75 to 90 percent of the peripheral edge being free to be lifted from the seal surface.

58. (Previously presented) The method of making a filtering face mask of claim 33, wherein the flexible flap is supported on the valve such that exhaled air is deflected downward during an exhalation when the filtering face mask is worn on a person.

59. (Currently amended) The method of making a filtering face mask of claim 33, wherein the mask body is cup-shaped and includes a filtering material and a shaping layer, wherein the exhalation valve is attached to the mask body directly in front of where the wearer's mouth would be when the mask is being worn for providing structure to the mask.

60-63. (Canceled)

64. (Currently amended) The method of making a filtering face mask of claim 59 [[33]], wherein the exhalation valve is attached to the mask body such that the second free portion of the flexible flap resides beneath the stationary portion when the mask is worn on a person.

65. (Currently amended) A method of making a filtering face mask, which method comprises:

(a) providing (i) a valve seat that comprises an orifice and a seal ridge that terminates at a seal surface, wherein the orifice allows air to pass therethrough and is surrounded by the seal surface, and (ii) a single flexible flap that has a periphery;

(b) supporting the single flexible flap at the flap-retaining surface non-centrally and operatively relative to the orifice and operatively relative to the seal surface of the valve seat to form an exhalation valve, the single flexible flap being supported such that: (i) the flexible flap has, in its closed state, an imposed curved profile in a cross-sectional side view thereof, which imposed curved profile extends from a first point where a stationary portion of the flexible flap is supported on the valve seat to a second point where a free portion of the flexible flap contacts the seal surface; (ii) the free portion of the flexible flap is pressed towards the seal surface of the valve seat in a closed state of the exhalation valve under any orientation thereof; (iii) the free portion of the flexible flap is held in the closed state under any orientation of the valve, at least in part, by virtue of the imposed curved profile thereof; [[and]] (iv) the free portion of the flexible flap includes a free segment of the periphery and represents the only free portion of the flap and can flex away from the seal surface so as to permit exhaled air to pass through the orifice and to provide an open state of the exhalation valve to make the flexible flap out of contact with the seal surface at the second point while the stationary portion of the flexible flap includes a stationary segment of the periphery opposite at least part of the free segment and remains essentially stationary at the first point; and (v) the stationary portion of the flexible flap when viewed from the side in cross-sectional profile extends from the first point where the flap is supported on the flap retaining surface to the stationary segment of the periphery of the flap;

(c) attaching the exhalation valve to a mask body that is adapted to fit over the nose and mouth of a person, the exhalation valve being attached to the mask body such that the first point is disposed above the second point when the mask is viewed from the front in an upright position.

66. (Currently amended) A method of making a filtering face mask, which method comprises:

(a) providing (i) a valve seat that comprises an orifice, a seal ridge that terminates at a seal surface, and a flap-retaining surface, wherein the orifice allows air to pass therethrough and is surrounded by the seal surface, (ii) a single flexible flap that has a periphery, and (iii) a valve cover that is joined to the valve seat;

(b) supporting the single flexible flap at the flap-retaining surface non-centrally and operatively relative to the orifice and operatively relative to the seal surface of the valve seat to form an exhalation valve, the single flexible flap being supported such that: (i) the flexible flap has, in its closed state, an imposed curved profile in a cross-sectional side view thereof, which imposed curved profile extends from a first point where a stationary portion of the flexible flap is supported on the valve seat to a second point where a free portion of the flexible flap contacts the seal surface; (ii) the free portion of the flexible flap is pressed towards the seal surface of the valve seat in a closed state of the exhalation valve under any orientation thereof; (iii) the free portion of the flexible flap is held in the closed state under any orientation of the valve, at least in part, by virtue of the imposed curved profile thereof; (iv) the free portion of the flexible flap includes a free segment of the periphery and represents the only free portion of the flap and can flex away from the seal surface so as to permit exhaled air to pass through the orifice and to provide an open state of the exhalation valve to make the flexible flap out of contact with the seal surface at the second point while the stationary portion of the flexible flap includes a stationary segment of the periphery opposite part of the free segment and remains essentially stationary at the first point; and (v) the stationary portion of the flexible flap is held at its stationary portion between the flap retaining surface of the valve seat and a second surface that is associated with the valve cover when the valve cover is secured to the valve seat[[],]; and (vi) the stationary portion of the flexible flap when viewed from the side in cross-sectional profile extends from the first point where the flap is supported on the flap retaining surface to the stationary segment of the flap periphery; wherein the imposed curved profile extends at least from where the flexible

flap contacts the second surface associated with the valve cover to where the second portion of the flexible flap contacts the seal surface of the valve seat when the exhalation valve is in its closed state; and

(c) attaching the exhalation valve to a mask body that is adapted to fit over the nose and mouth of a person, the exhalation valve being attached to the mask body such that the first point is disposed above the second point when the mask is viewed from the front in an upright position.

67. (New) The method of claim 66, wherein the flexible flap has a uniform thickness and has been cut into a rectangular shape, and has a free end that corresponds in shape to the seal ridge where the free end makes contact therewith.

68. (New) The method of claim 66, wherein the flexible flap has a uniform thickness, a rectangular shape, and a length of about 2.6 cm.